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| 09/972,896      | 10/10/2001  | Brian McGuire        | 033445-002          | 4470             |

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EXAMINER

LYONS, MICHAEL A

ART UNIT

PAPER NUMBER

2877

DATE MAILED: 12/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/972,896

Applicant(s)

MCGUIRE, BRIAN

Examiner

Michael A. Lyons

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,6,7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 9 and 11-13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 9 recites the limitation "said first comparison means" in line 1. There is insufficient antecedent basis for this limitation in the claim. The comparison means are never mentioned in claim 4, and in turn in claim 1, the claims claim 9 directly or indirectly depends on.

The term "a dangerous localized condition" in claims 11-13 is a relative term which renders the claim indefinite. The term "a dangerous localized condition" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear from both the specification and the claim language what exactly the dangerous localized condition is, whether it is simply wind shear, or whether it is something else such as a thunderstorm, a downburst, another airplane, or some other such dangerous localized object.

### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 3, 5, and 11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rees (6,034,760).**

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Regarding claim 1 and 11, Rees (Fig. 3) discloses a laser 12, a pulse modulator 24 for creating optical pulses, a CCD 87, and a processor 108 that can determine a current relative wind speed and a wind shear or dangerous localized condition. While the method is not explicitly claimed, since Rees's device contains the necessary elements, the claimed method can be applied to the device to achieve the desired results.

As for claim 3, laser 12 operates at about 1.57 or 2  $\mu\text{m}$  (Col. 4, line 38).

As for claim 5, the processor can be programmed to store each wind speed for each desired distance.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 2, 4, and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rees (6,034,760).**

As to claim 2, the use of a global positioning system to determine a current position is well known.

As for claim 4, the use of a Mach-Zender interferometer to determine a Doppler Shift is well known.

As for claim 6, the repetition of a process within a given time interval is well known.

As for claim 7, determining a range limitation for a device is well known.

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**Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rees (6,034,760).**

Regarding claims 8 and 12, Rees (Fig. 3) discloses a laser 12, a pulse modulator 24, a CCD 87 for a receiver, a fiber optic path length "stretched" delay device 48 (Col. 4, line 53), and a processor 108. While the delay device and processor are not identical to the devices as mentioned in the specification as related to the "means plus function" language, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the delay device and single processor of Rees for the delay means and the pair of comparison means as claimed while maintaining the functionality of the device.

**Claims 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rees (6,034,760).**

Regarding claims 10 and 13, Rees (Fig. 3) discloses a solid state laser 12, a CCD 87 as a receiver and detector, a beam splitter 32 to provide a reference beam from laser 12, a fiber-optic path length "stretched" delay device 48, and a processor 108. While the CCD, delay device, and processor are not explicitly mentioned as solid state devices, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the listed elements for the claimed solid state pieces as the listed elements serve as art recognized equivalents for the solid state devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Lyons whose telephone number is 703-305-1933.

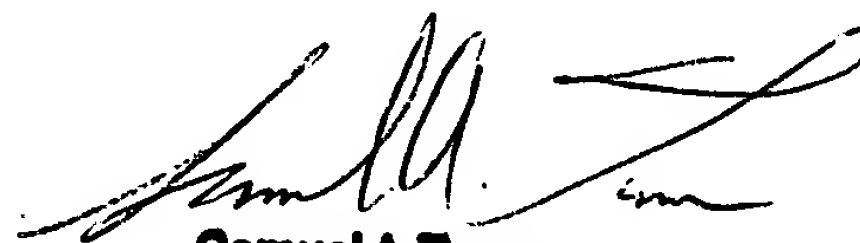
The examiner can normally be reached on Monday thru Thursday.

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• If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G Font can be reached on 703-308-4877. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-0725 for regular communications and 703-308-0725 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0935.

MAL  
December 11, 2002



**Samuel A. Turner**  
Primary Examiner